

A NEW COMBINATION IN *PENSTEMON* (SCROPHULARIACEAE)

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Studies of the genus *Penstemon* in the Great Plains (Freeman, 1981) indicate the necessity of a nomenclatural change. This change is made in advance of my treatment of the genus in the forthcoming Flora of the Great Plains.

*Penstemon glaber* Pursh var. *brandegei* (Porter) C. C. Freeman, comb. nov.

*Penstemon cyananthus* Hook. var. *brandegei* Porter in Porter & Coulter, Syn. Fl. Colo. 91. 1874. *Penstemon brandegei* (Porter) Rydb., Mem. New York Bot. Gard. 1: 343. 1900.

*Penstemon alpinus* Torr. subsp. *brandegei* (Porter) C. W. T. Penland in Harrington, Man. Pl. Colo. 496, 641. 1954.

Type: UNITED STATES. Colorado. Fremont Co. (fide Pennell, 1920): "Sierra Mojado", T. S. Brandegee 930 (MO).

*Penstemon glaber* exhibits considerable morphological variation throughout its range, but has three reasonably distinct varieties. Typical var. *glaber* occurs primarily on sandy or gravelly soil on the unglaciated high plains and in the foothills of the Rocky Mountains from southwestern North Dakota and north-central South Dakota, west to northwestern Wyoming, and south to the panhandle of Nebraska.

Variety *alpinus* (Torr.) A. Gray occurs largely on the eastern slope of the Rocky Mountains up to 3300 m (11,000 ft) elevation. The variety is distributed from southeastern Wyoming south to south-central Colorado. In the northern part of its range, var. *alpinus* may be found on the high plains where it passes into var. *glaber*.

In central and south-central Colorado, var. *alpinus* is observed to intergrade with the more southern var. *brandegei*. The latter is found on the eastern slope of the southern Rocky Mountains at elevations to 1700 m (5500 ft), and is encountered sporadically in the foothills and on the high plains. Variety *brandegei* is distributed from south-central Colorado, south to northeastern New Mexico, and in parts of Colfax and Union Cos., New Mexico, it is locally common.

The three varieties of *Penstemon glaber* can be distinguished

by the following characters.

1. Sepals 2-4 mm long, lance-ovate to orbiculate and broadly rounded or with an abruptly short-acuminate tip; corolla glabrous or pubescent internally on the anterior surface; staminode rounded at the tip. . . . . var. *glaber*
1. Sepals 4-7 (10) mm long, ovate and usually with a long-acuminate tip; corolla glabrous to pubescent or villose internally on the anterior surface; staminode rounded to distinctly bifurcate at the tip.
  2. Staminode rounded or obscurely bifurcate at the tip; corolla 24-35 mm long; stems glabrous to pubescent. . . . . var. *alpinus*
  2. Staminode usually distinctly bifurcate at the tip; corolla 30-40 mm long; stems puberulent to pubescent. . . . . var. *brandegei*

#### LITERATURE CITED

- Freeman, C. C. 1981. A biosystematic study of the genus *Penstemon* (Scrophulariaceae) in the Great Plains. Master's Thesis, Kansas State University, Manhattan.
- Pennell, F. W. 1920. Scrophulariaceae of the central Rocky Mountain states. Contr. U.S. Natl. Herb. 20: 313-381.